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ABSTRACT

Nuclear war education has become a topic of concern among educators who, on one side, see it as an essential component of undergraduate education or, on the other, see it as political indoctrination dominated by direct and indirect Soviet interests. This study assessed the affective impact of an intensive (eight hours per day for five straight days) interdisciplinary course on nuclear war issues. Twenty-one volunteer college students completed the Rokeach Value Survey, Modified World Affairs Questionnaire, Nuclear Freeze Questionnaire, Nuclear Anxiety Questionnaire, and the Werner-Roy Nuclear Activism Scale immediately before and after the course, and again over eight months later. Immediately after the class, students had changed their attitudes and beliefs concerning civil defense; nuclear war escalation, outcomes, and probability and worry; nuclear concern and support; fear of the future; and nuclear denial. They were much more positive about a nuclear freeze and their intention to act in support of a freeze. Eight months later, their concern had not changed significantly. They maintained significantly increased beliefs in the positiveness of nuclear freeze, but were less likely to act in support of it. In summary, several attitudinal variables remained changed while most did not differ significantly from students' pre-course levels. Four tables detailing pre- and post-test results are included, as is a course syllabus. A 22-item bibliography is provided. (GEA)

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Intensive Nuclear War Education: Inducing Attitude and Behavior Changes

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Lewis Clark State College

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SO 019 705

A paper presented at the annual meeting of the American Psychological Association, Atlanta, August 14, 1988.

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Abstract

This study assessed the affective impact of an intensive interdisciplinary course on nuclear war issues. The participants were 21 volunteer students who completed the Rokeach Value Survey, Modified World Affairs Questionnaire, Nuclear Freeze Questionnaire, Nuclear Anxiety Questionnaire, and the Werner-Roy Nuclear Activism Scale on Monday morning, again Friday afternoon, and again over eight months later. The participants initially showed significant shifts on 11 of the 13 attitudinal subscales. Immediately after the class students held different attitudes and beliefs concerning civil defense, nuclear war escalation, nuclear war outcomes, nuclear war probability and worry, nuclear concern, nuclear support, fear of the future, and nuclear denial. At this point the students demonstrated significant increases in their beliefs about the positiveness of a nuclear freeze and their intention to act in support of a freeze. After eight months, six attitudinal variables maintained the initial change in the same direction. Within the initial one week period the participants demonstrated higher levels of both anti-nuclear and pro-nuclear activism. After eight months, anti-nuclear behaviors were still significantly changed while pro-nuclear activism was no longer significantly different from the pretest.

Should a nuclear exchange between the United States and the Soviet Union take place, the consequences would be disastrous for the entire planet. The megatonage of current US and Soviet arsenals exceeds the fire power of all previous wars throughout history by enormous proportions. Even a relatively limited nuclear exchange might trigger a nuclear winter with the potential to end human life, as well as, to bring about the extinction of most (if not all) other life on earth (Turco, Toon, Ackerman, Pollack, & Sagan, 1983).

During the late 1970's and early 1980's many citizens of Western Europe and the United States developed a renewed awareness of this potential for disaster hanging over our heads. Events which precipitated this upsurge in world nuclear awareness included the failure of the SALT II Treaty ratification, the Soviet invasion of Afganistan and the election of conservative governments such as the Reagan administration. Averting a nuclear war became a often raised issue in magazine and newspaper articles (Polyson, Hilmar, & Kriek, 1986) and in public opinion polls (Kramer, Kalick, & Milburn, 1983). The perception present in the early 1980's was that something needed to be done to change the current world situation to reduce the chance of a nuclear war. This perception was accompanied by a belief that something could be done to change the thinking of our political leaders and the fundamental structure our political institutions (e.g. Caldicott, 1982).

Many academicians developed and implemented peace and nuclear war related courses in response to this heightened awareness of the nuclear issue. By the mid 1980's well over a hundred colleges and universities across the United States and Europe were offering courses dealing with

peace and issues related to the threat and consequences of a possible nuclear war. A perusal of the course syllabi assembled by organizations such as the United Campuses to Prevent Nuclear War reveals that these courses are not only being taught in the more traditional segments of the curriculum such as political science and international relations (United Campuses to Prevent Nuclear War, 1983). Indeed, peace and nuclear war courses have been and are presently being offered in departments as diverse as psychology, history, mathematics, physics, English literature and composition, education along with many interdisciplinary formats. In fact, nearly every discipline across the curriculum has developed some form of peace or nuclear war education.

Many educators believe peace and nuclear war education is an extremely important part of an undergraduate's course of study. Numerous professional journals have devoted entire issues to the topic of nuclear war education (e.g. Journal of College Science Teaching, March/April 1983; Social Education, November/December 1983; Harvard Educational Review, August 1984). National conferences have been conducted devoted to nuclear education such as the one at George Mason University (Christie, 1986). In addition, symposia, panel discussions, and invited speakers dealing with the description of and the need for nuclear war education have been noteworthy at the annual meetings of numerous professional organizations.

It is clear that many academicians view nuclear war education as important and having a legitimate place in the curriculum. The rationales for peace education and nuclear war education are as varied as the departments and faculty who have developed and implemented the

coursework. Christie (1986) describes the range along a continuum. At one end of the continuum nuclear educators are more empassioned and emotional with the desire to move their students to political action. The dire consequences of a nuclear war and the urgency of action are stressed in this rationale. At the other end of the continuum the emphasis is less emotional and more focused on developing an informed citizenry. The importance of a rational and informed debate on the complex issues involved in making the hard political decisions of our nuclear age are stressed.

The topic of nuclear war education has not been without its critics. Concern has been expressed that nuclear war education is political indoctrination (e.g. Chavez, 1983; Divoky, 1984), dominated by direct and indirect Soviet interests (e.g. Rees, 1982), and an inevitable way to terrorize and overly frighten our students (e.g. Adelson & Finn, 1985).

With strong advocates and strong critics the need to understand the effect of nuclear war education is an important one. Some data has been gathered concerning the attitudinal impact of a single lecture or a short series of lectures as part of regular courses within a psychology curriculum (Nelson, Slem, & Perner, 1986). However, the effects of entire courses on peace and nuclear war have not been systematically examined (Christie & Nelson, in press). The purpose of this study was to assess the attitudinal and behavioral impact of a balanced nuclear war course designed to develop informed citizens.

Method

Participants

The participants in this study were college student volunteers who had enrolled in an interdisciplinary course on nuclear war issues at a small state college in the Pacific Northwest. All of the 21 students enrolled in the class elected to participate in the study. Most of the participants enrolled in the course primarily to fill an interdisciplinary upper division general education requirement for graduation. A total of 15 females and 6 males completed the course and were involved in the first two testings. Their ages ranged from 20 to 43 with a mean age of 32 and a standard deviation of 5.6 years. All but 4 of the participants were seniors in class standing.

Design

The design for this study was a variation of a single group time-series quasi-experimental design with one pretest and two posttests. The one week treatment was the completion of an interdisciplinary course titled "Nuclear War: Its Impact and Consequences". This three semester credit course was offered during May of 1987 in an intensive format for 8 hours a day for five straight days. This general interdisciplinary survey of nuclear war issues was a writing- intensive course which was one of several courses available to fulfill an integrative component of the general education core. Students were required to keep a journal of all readings and class activities, to write an instructor-assigned issue paper for each of the first three evenings and to write a paper entitled "How to Prevent Nuclear War" for Friday. A copy of the course syllabus is included in the Appendix of this paper.

Participants completed a large questionnaire as the first activity in the course on Monday morning (May 18, 1987) and again on Friday afternoon (May 22, 1987) just prior to the final discussion on the impact of the course. The large questionnaire included the Rokeach Value Survey - Form G, Modified World Affairs Questionnaire, Nuclear Freeze Questionnaire, Nuclear Anxiety Questionnaire, and the Werner-Roy Nuclear Activism Scale. This same large questionnaire was mailed to each of the 21 participants a little over eight months later during February of 1988. A total of 16 of the 21 initial participants completed and returned this followup assessment.

Instruments

The Rokeach Value Survey - Form G (Rokeach, 1973) was included in a paper and pencil form immediately after the demographics section of the instrument. Respondents were required to separately rank 18 terminal values and 18 instrumental values according to their importance as a guiding principle in their lives. The highest value is assigned a 1, the second highest value a number 2, and this process continues until the lowest value is assigned the number 18. In this manner a value hierarchy of priorities is determined for the respondent.

The Modified World Affairs Questionnaire (MWAQ) is a reliable and valid 18 item questionnaire with four subscales (Mayton, in press a, in press b). The four scales are 1) civil defense, 2) escalation, 3) nuclear war outcome, and 4) probability and worry about nuclear war with 4,3,4, and 5 items, respectively. Each summated subscale score is computed with 0 as the neutral response. Positive scores on the civil defense scale indicate more optimistic views of our civil defense,

positive scores on nuclear war outcome indicate beliefs that a nuclear war is more destructive, and positive scores on the probability and worry scale indicate views that a nuclear war is less probable and less worrisome. Positive scores on the escalation scale indicate a strong resolve to use military force at the highest levels to win any conflict.

A total of 19 items from a nuclear freeze questionnaire (NFQ) developed by McClenney (McClenney and Neiss, 1984) were included on the large instrument utilized in this study. These items assessed attitudes toward a nuclear freeze and comprised the five scales based upon the work of Fishbein and Ajzen (1975). These scales were labeled 1) outcome evaluations, 2) behavioral beliefs, 3) normative beliefs, 4) motivations to comply, and 5) intentions to act and consisted of 3,7,3,2, and 4 items, respectively. Scale scores for each scale are computed by summing the respective items and dividing by the total number. These scale score means range from 1 to 7 with higher scores more positive toward a nuclear freeze, 4 being a neutral response, and low scores more negative toward a nuclear freeze.

The Nuclear Attitudes Questionnaire (NAQ) developed by Newcomb (1986) was also included in the survey instrument. The NAQ is a 15 item questionnaire in which respondents indicate their agreement or disagreement to sentences on a five point Likert scale. These items assess four factors which were labeled 1) nuclear concern, 2) nuclear support, 3) fear of future, and 4) nuclear denial and consisted of 5,4,2, and 4 items, respectively. For scoring purposes the items on each of the NAQ scales were computed so that scores ranged between 2 and -2 with 0 as a neutral response. For the nuclear concern scale positive

scores indicate greater concern about nuclear issues and negative scores indicate less concern. For the nuclear support scale positive scores indicate greater support for nuclear weapons and power and negative scores indicate less support. Positive scores on the fear of the future scale indicate greater fear of the future while negative scores indicate less fear. For the nuclear denial scale positive scores indicate greater denial about nuclear issues and negative scores indicate less nuclear denial.

Werner and Roy (1985) developed and analyzed a 14 item scale measuring nuclear activist behavior. Their Brief Measure of Activism Regarding the Nuclear Arms Race (BMARNAR) has a seven item anti-nuclear weapons scale and a seven item pro-nuclear weapon scale.

Results

The means and standard deviations for the four MWAQ subscales, the five NFQ subscales, and the four NAQ subscales for the pretest and the two posttests are presented in Table 1. The two comparisons of interest are the pretest and the immediate posttest comparison and the pretest and the eight month posttest comparison. The statistical significance of these two comparisons were analyzed using two paired t tests for each of the 13 attitude variables. The results of these analyses are presented in Table 2.

Insert Tables 1 and 2 about here

Eleven of the 13 pretest-immediate posttest comparisons were significant at the .05 probability level. At the end of the one week

course the students were significantly less likely to see civil defense as effective and less likely to support escalation in a military confrontation. Immediately after the course ended the students viewed nuclear war as significantly more devastating, significantly more probable, and worried about it significantly more often. At this time the students demonstrated significant increases in their beliefs about the positiveness of a nuclear freeze, their beliefs that certain behaviors could bring about a nuclear freeze, and their intention to act in support of a freeze. They demonstrated significant increases in nuclear concern and fear of the future along with significant decreases in nuclear denial and in support for nuclear weapons and nuclear power plants.

Only 6 of the 13 pretest-8 month posttest comparisons were significant at the .05 probability level. Eight months after the one week course the students were still significantly less likely to see civil defense as effective but were no longer less likely to support escalation in a military confrontation. Eight months later the students still viewed nuclear war as significantly more devastating, but their assessment of the probability of a nuclear war and their level of worry about it did not significantly differ from their pretest levels. The students maintained significant increases in their beliefs about the positiveness of a nuclear freeze and their beliefs that certain behaviors could bring about a nuclear freeze. However, their intention to act in support of a freeze was no longer significantly different than before the course began despite the observed trend of an increase. While the trends for increases in nuclear concern and fear of the future

were not significant, the students demonstrated significant decreases in nuclear denial and in support for nuclear weapons and nuclear power plants eight months after the course.

The means and standard deviations for the two BMARNAR subscales for the pretest and the two posttests are presented in Table 3. The pretest and the immediate posttest comparison and the pretest and the eight month posttest comparison was analyzed using two paired t tests for each of the two BMARNAR subscales. The results of these analyses are also presented in Table 3. While a significant difference was found in the pro-nuclear activist behaviors over the week of the course, no significant mean differences were identified for the pretest - 8 month followup interval. Significant increases were observed in the levels of reported anti-nuclear activist behavior for both the one week interval of the course and the eight months after the course ended.

Insert Table 3 about here

The composite ranks for the terminal values of a world at peace and national security for the pretest and the two posttests are presented in Table 4. The pretest and the immediate posttest comparison and the pretest and the eight month posttest comparison were analyzed using the Wilcoxon matched-pairs signed ranks test. The pretest and the immediate posttest comparison for the value of a world at peace showed an increase in importance but this trend did not reach traditional levels of statistical significance ($p = .10$). The pretest and the eight month posttest comparison showed a decrease in importance for the value of a

world at peace but again this trend did not reach traditional levels of statistical significance ($p = .07$). The value placed on national security did not fluctuate to any significant degree across the three assessment times.

Insert Table 4 about here

Discussion

The intensive interdisciplinary nuclear war course investigated in this study made a strong impact on the attitudes of the students. Nearly all of the student attitudes which were assessed changed during the week-long course. Perhaps more importantly, nearly half of the attitudes assessed maintained this change over the eight months following the conclusion of the course.

The students viewed nuclear war as significantly more devastating immediately after as well as over eight months after the nuclear war course ended. The student's attitudes became more skeptical of civil defense measures in the face of a nuclear war and also maintained this view over eight months after the conclusion of the course. Similar skepticism was generated and maintained regarding support for nuclear weapons and for nuclear power plants. Long term changes also occurred in a reduction of nuclear denial. In addition, the students became more positive in their evaluation of a bilateral nuclear freeze and their beliefs that one could in fact occur.

Adelson and Finn (1985) were concerned that nuclear war education would overly frighten students. This appears to be partially the case

when nuclear war education is packaged in this intensive one week format. However, after a time, this worry does dissipate and return to earlier levels. Eight months after the conclusion of the course the level of reported worry by the students was no different than when the course began. The same patterns held for overall nuclear concern and fear of the future. Thus, the contentions of Adelson & Finn (1985) appear to be overstated for this population.

Perhaps the most significant attitude change immediately after the week long course was in the student's intentions to act in a way to bring about a bilateral nuclear freeze. During the eight months following the end of the course the students did report significant increases in their anti-nuclear activist behavior. This change in intentions to act prior to actual behavior change is congruent with the theory of reasoned action (Fishbein and Ajzen, 1975).

The fact that student nuclear war activist behavior changed is particularly noteworthy since so few adults are politically active (Fiske, 1987). At first glance the concerns of nuclear education critics with their cries of propaganda and brainwashing (Divoky, 1983) or indoctrinating students to the instructor's own political views and biases (Adelson & Fin, 1985) seems to be realized. However, a closer look at the data reveals a somewhat different picture. Students did increase their anti-nuclear activist behavior during the eight months after course completion. But, during the week of the course itself, students increased their anti-nuclear activist behavior along with their pro-nuclear activist behavior. A look at the individual BMARNAR items assessing activist behavior shows that these subscale increases during

the course itself were primarily in one area. Students were engaging others in discussion and debate by using both pro-nuclear and anti-nuclear points of view. It appears that students tended to play the "devil's advocate" in their conversations. This is an indication that a balanced presentation of viewpoints was presented. It was only after the course had ended when the pro-nuclear behavior reverted back to earlier levels. It was after the course was over when the anti-nuclear behavior continued to increase. Therefore, again the concerns of the critics do not appear to be fully substantiated. Whereas the interaction with a balanced nuclear war course did increase pro-nuclear behavior initially, it appears as though the subsequent life experiences of the students extinguished this and not an indoctrinating instructor.

The final dependent variables which were analyzed for this study were the values placed on a world at peace and national security. No significant changes were observed on either value. Student indoctrination toward higher priorities placed on a world at peace and lower priorities on the value of national security is clearly not occurring. The trends observed for the value of a world at peace were quite curious. The initial composite rank change from fourth in importance to first in importance for the group was not surprising. The change in the composite rank from first to ninth in importance during the eight months following the course was not expected. It appears that subsequent life experiences not only reversed the near value change back towards its earlier level of priority but these experiences also reduced the priority well below its initial levels. More investigation into the dynamics of this trend is needed. Perhaps it is a function of historic

world events which occurred between the time of the class and the long term followup such as the Reagan-Gorbachev summit in Washington.

The particular nuclear war course studied here was designed to develop a more informed citizenry and stressed a balanced presentation of viewpoints and the importance of rational debate on the complex nuclear issues. This relatively traditional academic orientation resulted in significant attitude and behavior changes. Would similar results be observed in other nuclear education courses based on the same rationale? Would similar results be observed in nuclear education courses based on a different rationale? Replications of this study with other nuclear war courses in other locations are certainly needed to determine the robustness of these findings.

Markusen and Harris (1984) have described nuclear war education as "the foundation of efforts to reduce the threat of nuclear war" (p. 301). If the increase in anti-nuclear activist behavior observed in this study might be viewed as efforts to reduce the nuclear threat, then perhaps nuclear educators are on the right track.

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McClenney, J.T. & Neiss, R. (1984, August). Responses to the threat of nuclear war: An experimental study of attitudes. Paper presented at the annual meeting of the American Psychological Association, Toronto, Ontario, Canada.

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Table 1

Means and Standard Deviations for Nuclear War Attitude Scales

Nuclear Attitude Scale	Pretest		Posttests			
			Immediate		8 Month	
Subscale Name	(n = 21)		(n = 21)		(n = 16)	
	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.
Modified World Affairs Questionnaire						
Civil Defense	0.05	1.10	-0.55	.81	-0.88	1.14
Escalation	-0.92	.89	-1.46	.68	-0.94	1.16
Nuclear War Outcome	1.86	.91	2.39	.79	2.28	1.02
Probability/Worry	.74	.53	1.17	.72	0.68	.87
Nuclear Freeze Scale						
Outcome Evaluation	5.02	1.13	6.10	1.04	6.13	.63
Behavioral Beliefs	3.86	1.32	5.05	1.00	4.62	1.14
Normative Beliefs	4.13	1.20	4.30	1.11	4.50	1.14
Motivation to Comply	4.12	1.23	3.79	1.35	4.09	.64
Intention to Act	4.58	1.31	5.62	1.05	4.92	1.20
Nuclear Attitude Questionnaire						
Nuclear Concern	0.53	.88	1.06	.85	0.76	.92
Nuclear Support	-0.56	.57	-1.04	.71	-1.00	.67
Fear of Future	-0.30	.66	0.21	.71	-0.19	.75
Nuclear Denial	-0.33	.82	-0.95	.71	-0.78	.88

Table 2

Results of Planned Paired t Tests for Nuclear War Attitude Scales

Nuclear Attitude Scale / Subscale Name	Paired t Tests: Pretest vs. Immediate Posttest			Paired t Tests: Pretest vs. 8 Month Posttest		
	t Value	df	p	t Value	df	p
Modified World Affairs Questionnaire						
Civil Defense	2.09	19	.050	2.63	15	.019
Escalation	2.68	20	.014	0.28	15	.780
Nuclear War Outcome	-4.47	20	.000	-2.33	15	.034
Probability/Worry	-3.38	20	.003	0.86	15	.183
Nuclear Freeze Scale						
Outcome Evaluation	-2.97	19	.008	-4.14	14	.001
Behavioral Beliefs	-4.92	20	.000	-3.49	15	.003
Normative Beliefs	-0.73	20	.475	-0.70	15	.497
Motivation to Comply	1.16	20	.260	0.63	15	.535
Intention to Act	-4.33	18	.000	-1.17	10	.271
Nuclear Attitude Questionnaire						
Nuclear Concern	-3.29	19	.004	-1.39	14	.185
Nuclear Support	3.14	19	.005	3.30	14	.005
Fear of Future	-3.19	17	.005	-0.46	14	.655
Nuclear Denial	4.64	19	.000	2.76	14	.015

Table 3

Means and Standard Deviations for Nuclear War Activist Behavior

Activist Behavior Scale	Pretest (n = 21)		Posttests: Immediate (n = 21)		Posttests: 8 Month (n = 16)	
	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.
Nuclear Freeze Subscale	3.47 ab	3.10	5.14 a	2.83	6.56 b	3.71
Strong Defense Subscale	1.94 c	1.89	2.91 c	1.97	2.68	1.40

a b significant at the .01 level using a paired t test
c significant at the .05 level using a paired t test

Table 4

Composite Ranks for Terminal Values By Time of Assessment

Terminal Value	Pretest May 18, 1987 (n = 21)	Posttest May 22, 1987 (n = 21)	Posttest Feb. 1988 (n = 16)	National Sample 1981
A WORLD AT PEACE	4	1	9	2
NATIONAL SECURITY	13	15	13	13

APPENDIX

SYLLABUS

DATE: Live and Learn 1987 Lewis Clark State College, Lewiston, ID
COURSE NUMBER AND TITLE: Social Science 350 - Nuclear War:
Impact and Consequences
CREDIT HOURS: 3
INSTRUCTOR: Dr. Dan Mayton
Department of Psychology, Division of Education
799-2280 (or leave message at 799-2260 or 799-2290)

COURSE DESCRIPTION:

This course is designed as a general interdisciplinary survey of issues related to nuclear war which fulfills an integrative component requirement of the general education core. The history of the development of nuclear weapons, delivery systems and other technological advancements which have occurred to the present will be discussed. The political and military aspects of U.S. and Soviet posturing and their strategies towards waging nuclear war will be presented along with their respective civil defense strategies. The medical, environmental and societal consequences of a major super power nuclear exchange will also be presented. The course will also consider the impact that the possibliity of nuclear war has had from psychological, economic, religious, moral perspectives. Presentations of representative advocacy groups concerning nuclear issues will be made to help students formulate their own positions concerning how nuclear war can best be prevented. The assignments, discussions and presentations will focus on the values manifest in each content area and the ethical implications of the dominant points of view regarding nuclear war issues.

TEXTBOOKS:

Kegley, C.W. and Wittkopf, E.R. (eds) (1985) The nuclear reader: Strategy weapons and war. New York, NY: St. Martin's Press.

White, R.K. (ed.) (1986) Psychology and the prevention of nuclear war. New York: New York, University Press.

COURSE COMPETENCIES:

To satisfactorily complete this course, students must demonstrate the following:

1. Knowledge of the key figures in the development of nuclear weapons and the forces that precipitated their initial development and that have effected their continued development.

2. Knowledge of the present nuclear forces and their delivery systems deployed by the U.S. and U.S.S.R.

3. Knowledge of and the ability to analyze the current and proposed strategies for waging a nuclear war from military, political, psychological, religious and world standpoints.

4. Knowledge of the dominant historical and present day events effecting the Soviet leadership and citizenry.

5. Ability to identify and analyze the assumptions and values inherent in current views of U.S. and Soviet relations, in the MAD policy, in the Strategic Defense Initiative, and in the arms control process.

6. Knowledge of the medical, environmental, social, psychological and economic consequences of the preparation for nuclear war.

7. Knowledge of the medical, environmental, social, psychological and economic consequences of a major U.S.-Soviet nuclear war.

8. Ability to identify and analyze the assumptions and values of both pro-strong military and pro-nuclear freeze advocacy groups and their respective positions and activities.

9. Ability to clarify your own values related to the prevention of nuclear war and to present a persuasive argument supporting a plan to prevent nuclear war based on your value and belief system.

10. Ability to analyze the legitimacy and/or objectivity of claims made by politicans, artists, media personalities, film makers, novelists, etc. regarding nuclear war related issues.

COURSE OUTLINE

May 18th - Introduction, History of the Atomic Bomb Development, and Present Realities

Textbook Readings:
Nuclear Reader p. 1-8
Psychology and Nuclear War, Introduction, Chapters 1 & 2

Audiovisual Activities:
Videotape - Atomic Cafe (90 min.)
Videotape - Ten Seconds That Shook the World (50 min.)

Readings on Reserve:
Memoirs by Harry S. Truman, Vol. 1, Year of Decisions. Chapter 26.
Sherwin, M.J. (1985) How well they meant. Bulletin of Atomic Scientists. 41 (7), 9-15.
Rotblat, J. (1985) Leaving the bomb project. Bulletin of Atomic Scientists. 41 (7) 16-19.

May 19th - Physics of Nuclear Weapons, Their Delivery Systems, and Nuclear War Scenarios

Textbook Readings:
Nuclear Reader - Chapters 10 and 19
Psychology and Nuclear War - Chapters 13, 18, & 19

Audiovisual Activities:
Videotape - Hiroshima/Nagisaki 1945 (30 min.)
Film: Effects of Nuclear Weapons on Residential Structures (3 min.)
Slide-tape presentation: First-Strike Nuclear Warfare (35 min.),

May 20th - Strategies for Waging and Surviving a Nuclear War, Plus US-Soviet Relations

Textbook Readings:
Nuclear Reader - Chapters 1, 2, 17, 18, and 23
Psychology and Nuclear War - Chapters 3, 5, 6, 22 & 23

Audiovisual Activities:
Under the Mushroom Cloud (25 min.)
Videotape: US - Soviet Relations

May 21th - Environmental, Medical, Psychological & Social Impact of the Threat of Nuclear War

Textbook Readings:
Nuclear Reader - Chapter 20 and 24

Audiovisual Activities:
Videotape: Bombs Will Make the Rainbow Break (17 min.)
Slide-tape presentation: A-Bomb Survivors Recollect (23 min.)

Readings on Reserve:
Peterson, J. (ed.) (1983) The aftermath: The human and ecological consequences of nuclear war. Chapters 4 & 5.

May 22th - The Arms Race, National Security, Arms Control and Values

Textbook Readings:
Nuclear Reader - Chapters 3 - 5, 11 - 13
Psychology and Nuclear War - Chapters 9, 11, & 12

Audiovisual Activities:
Filmstrip-tape presentations: Disarmament: The Quest for Lasting Peace
Videotape: The Freeze (25 min.), Countdown for America (30 min.).

METHODS OF INSTRUCTION:

Assigned readings, lectures, videotapes, slides, filmstrips, films, audiotapes, and seminars.

METHODS OF EVALUATION:

Grades will be based on a 400-point system, with maximum points allotted in each area as follows:

Issue Papers (3)	150
Position Paper - How to Prevent Nuclear War	100
Journal	50
Attendance/Participation/classroom activities	100

Final course grades will be based on the standard percentage system for letter grades. The breakdown for this course will be as follows:

A	360 - 400 Points
B	320 - 359 Points
C	280 - 319 Points
D	240 - 279 Points
F	Below 239 Points

Position Paper Guidelines

This assignment involves persuasive writing. You are to describe how you think nuclear war should be prevented and persuade one of your peers that you are correct in your position. You should use as much of the information which you have learned about the subject as you can to specifically support your views. You should speak to the necessity to adhere to your position and to the feasibility of your methods for being successful. You may want to contrast and rebut other positions for prevention with your approach to strengthen your case. Your position paper should be about 5-6 double-spaced type written pages with references for all the facts you use to support your position.

Journal Guidelines

Your journal is a place for you to express your reactions to your assigned readings, assigned activities, and classroom presentations. You should have an entry in your journal for each chapter of the assigned readings, each videotape or slide presentation and each seminar. For example, you should have a minimum of eight journal entries for the activities of the first day. One for the seminar, one for the Nuclear Reader readings, three for the Psychology and Nuclear War readings, one for "Threat of Nuclear War" slide tape presentation, one for the video "Atomic Cafe." and one for the video, "Ten Seconds that Shook the World. Other experiences such as television programs, movies, magazine articles and newspaper articles which "grab" you, might also be included in your journal. The content of your entries should include (1) what you view as the main points expressed in the readings or activities, (2) your cognitive reactions to the experience, and (3) your affective reactions to the experience. In other words, you should briefly summarize and evaluate the experiences you have related to this course in terms of your own beliefs and feelings. The journal is designed to give you a vehicle to let the instructor know how you are responding to the course and to structure the seminars accordingly.

You should make entries in your journal immediately after you complete each assignment and activity. Preferably entries should be two paragraphs in length with a one paragraph minimum. It is hoped that your journal entries will be spontaneous and straight forward. There is no need to go back and rewrite it before you turn it in, unless your writing is unreadable. Journals need to be typed only if your handwriting is illegible. Journals will not be evaluated in the same way as a formal paper, but will be looked at more informally according to the intent of the assignment.